

## **PATENT CLAIMS**

1. A motor vehicle comprising a device (1) for controlling the shifting movement of a closure element (2) between an open position (3) and closed position (4) by means of a shifting drive (5) fixed on the closure element (2), which shifting drive, in an activated state, automatically adjusts the closure element (2), a transmission element (11) being provided which

- is mounted movably with a bearing region (13, 15) on a body region (16), and
- is coupled by a coupling region (18), which faces away from the bearing region (13, 15), to the shifting drive (5) in order to transmit mechanical forces, characterized

in that the transmission element (11) is additionally mounted movably on a support console (7) connected fixedly to the closure element (2).

2. The motor vehicle as claimed in claim 1, characterized

in that the transmission element (11) is movable in different directions (12, 80) relative to the support console (7).

3. The motor vehicle as claimed in claim 1 or 2, characterized by

a movement guide between the transmission element (11) and support console (7).

4. The motor vehicle as claimed in claim 3, characterized

in that the transmission element (11) and the support console (7) are connected movably to each other via a slotted-guide mechanism.

5. The motor vehicle as claimed in claim 4, characterized

- in that the support console (7) has a guide track (19), and
- in that the transmission element (11) has a guide pin (20) corresponding with the guide track (19).

6. The motor vehicle as claimed in claim 1, characterized

in that the bearing region (13, 15) of the transmission element (11) is mounted on a rotary bearing (17) of the body.

7. The motor vehicle as claimed in claim 1,  
characterized

in that it has a cable-pull system (22, 29) which is operatively connected, on the one hand, to the coupling region (18) of the transmission element (11) and, on the other hand, to the shifting drive (5).

8. The motor vehicle as claimed in claim 7,  
characterized

in that the cable-pull system (22, 25) contains at least one return pulley (21, 23) for at least one pulling cable (22, 25).

9. The motor vehicle as claimed in claim 8,  
characterized

in that one return pulley (21, 23) is fixed on the coupling region (18) of the transmission element (11).

10. The motor vehicle as claimed in claim 8,  
characterized

in that a first pulling cable (22)

- is fixed by a first cable end (29) to a fixing section (30) of the support console (7) and
- is operatively connected by a second cable end to the shifting drive (5).

11. The motor vehicle as claimed in claim 10,  
characterized

in that the shifting drive (5) is coupled to a cable drum (34) to which the second cable end of the first pulling cable (22) is connected.

12. The motor vehicle as claimed in one of claims 7 - 11,  
characterized

in that at least two return pulleys (21, 23, 24) are provided,

- the first return pulley (21) being assigned to the first pulling cable (22) and a second return pulley (23) being assigned to a second pulling cable (25),
- the two return pulleys (21, 23) being fixed on the coupling region (18) of the

transmission element (11) at a distance from each other in a movement direction (12) of the transmission element (11).

13. The motor vehicle as claimed in claim 12,  
characterized

in that the second pulling cable (25) is fixed by a first cable end (32) on a fixing section (33) of the support console (7) and is operatively connected by a second cable end to the shifting drive (5).

14. The motor vehicle as claimed in claims 10 and 13,  
characterized

in that the two fixing sections (30, 33) are arranged with respect to an imaginary separating line (81), which separates the two return pulleys (21, 23) from each other, on two opposite sides of this separating line (81).

15. The motor vehicle as claimed in one of claims 10 - 14,  
characterized

in that the two cable ends of the two pulling cables (22, 25) are connected to the cable drum (34) in such a manner that, when the cable drum (34) is moved, either the first pulling cable (22) is wound up and the second pulling cable (25) is unwound, or vice versa.

16. The motor vehicle as claimed in one of the preceding claims,  
characterized

in that the shifting drive (5) has an electric motor (35) which can be coupled to a gear unit (37) and can be decoupled from the gear unit (37) via a coupling (36).

17. The motor vehicle as claimed in one of the preceding claims,  
characterized

in that it has an electrical interface (53) for an electrical connection.

18. The motor vehicle as claimed in one of the preceding claims,  
characterized

in that the control device (1) is at least partially mounted onto the closure element (2), in particular is fitted into the closure element (2).

19. The motor vehicle as claimed in one of the preceding claims,  
characterized  
in that the closure element is designed as a motor vehicle door (2).
20. The motor vehicle as claimed in claim 19,  
characterized  
in that the motor vehicle door (2) is inclined with respect to a vertical plane in the  
direction of the vehicle interior.
21. The motor vehicle as claimed in claim 16,  
characterized  
in that the coupling (36) can be triggered for coupling and decoupling purposes via  
control means (62).
22. The motor vehicle as claimed in claim 21,  
in that the triggering takes place in such a manner that the electric motor (35) and  
the gear unit (37) are decoupled when the closure element (2) is not being moved  
and/or when the electric motor (35) is deactivated.
23. The motor vehicle as claimed in claim 21,  
characterized  
in that the triggering takes place in such a manner that the electric motor (35) and  
the gear unit (37) are coupled when the electric motor (35) is activated.
24. The motor vehicle as claimed in one of the preceding claims,  
characterized  
in that the shifting drive (5)  
  - can be activated via an actuating element (63) and
  - can be triggered in such a manner that it remains deactivated during the  
shifting of the closure element (2) out of the closed position (4).
25. The motor vehicle as claimed in one of the preceding claims,  
characterized  
in that has means (46) for arresting the closure element (2) in any desired  
intermediate positions between a first and a second extreme position.
26. The motor vehicle as claimed in one of the preceding claims,

characterized

in that an obstacle-recognition means is provided which, when an obstacle is recognized during the closing shifting movement, supplies the shifting drive (5) with a control signal (Sem) for deactivating or reversing the shifting drive (5).

27. The motor vehicle as claimed in claim 26,  
characterized

in that a physical variable ( $U_p$ ) which is dependent on the position of the closure element (2) is evaluated for obstacle-recognition purposes.

28. The motor vehicle as claimed in claim 27,  
characterized

in that a variable ohmic resistor (43) is mechanically connected to the closure element (2) in such a manner that a position-dependent, electric voltage ( $U_p$ ) can be tapped off across the resistor (43).

29. The motor vehicle as claimed in claim 26,  
characterized

in that the triggering of the control signal (Sem) is dependent on the comparison of two consecutive voltage values ( $\Delta U$ ) with a threshold value ( $w$ ).

30. The motor vehicle as claimed in claim 29,  
characterized

in that a quotient is formed from two consecutive voltage values ( $\Delta U$ ) and a predetermined time interval ( $\Delta t$ ) for comparison with the threshold value ( $w$ ).